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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/743,245
Filing Date: December 22, 2003
Appellant(s): MALDONADO PACHECO ET AL.

James Bagarazzi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/10/08 appealing from the Office action mailed 2/22/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,383,431	DOBRIN et al.	5-2002
5,143,679	WEBER et al.	9-1992
4,874,451	BOGER et al.	10-1989
2002/0119288A1	MORMAN et al.	8-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-11 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrin et al.(U.S. patent 6,383,431) in view of Weber et al.(U.S. Patent 5,143,679), and Boger et al.(U.S. Patent 4,874,451)

Dobrin et al. discloses a method of forming a laminate by bonding together a stretchable web to a filled second web, the stretchable web being passed between a roll with grooves and a second roll with fins which fit within the grooves prior to bonding to the second web so as to stretch the first web while maintaining the position of the stretchable web with respect to the first roll. This set of rolls stretches the first web along lines in the first web via the fins on the second roll. The stretched web is then coated with adhesive and joined to the second web.(Abstract; Figure 1; Col. 7, ll. 56-57; Col. 8, ll. 25-30; Col. 10, ll. 18-20; Col. 21, ll. 23-24, 48-50) The reference does not disclose forming successive nips between the first roll and multiple second rolls with

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fins. Weber et al. discloses stretching a laminate using multiple rolls with ribs which interact with a single roll with grooves. This use of multiple rolls reduces the rate at which the stretching of the laminate is carried out, reducing the strain on the web and causing less damage to the laminate than the use of a single roll pair.(Col. 17, ll. 57-Col. 18, ll. 16) It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the single roll pair of first and second roll in Dobrin et al. with multiple roll pairs formed from separate second rolls interacting with the same first roll since this would reduce the strain on the first web as it is stretched and cause less damage to the web than the use of the single roll pair of Dobrin et al.(Col. 17, ll. 57-Col. 18, ll. 16)

Dobrin et al. discloses the adhesive is applied to the stretched web, but is silent as to the specifics of the adhesive applicator, only indicating that such methods are well known to those in the art.(Col. 21, ll. 23-26, 48-50) Boger et al. discloses a device for applying adhesive to a diaper via a number of slots onto specific locations on the web.(Abstract; Figure 1) This allows the accurate placement of adhesive with a relatively simple system which requires little maintenance.(Col. 2, ll. 23-31) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a slot applicator like that of Boger et al. to apply the adhesive to the corrugated web of Dobrin et al. since Dobrin et al. indicates well-known types of adhesive applicators can be used and since the adhesive applicator of Boger et al. is a adhesive applicator known in the diaper arts which would allow the accurate placement of adhesive with a relatively simple system which requires little maintenance.(Col. 2, ll. 23-31)

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Regarding claim 2, Weber et al. discloses the fins of the successive second rolls enter the grooves of the first roll at different degrees providing a different amount of stretch at different nips.(Col. 17, ll. 57- Col. 18, ll. 16)

Regarding claims 4, 7, and 16, Dobrin et al. discloses the first web is a nonwoven with a basis weight of 10g/m^2 to 80g/m^2 .(Abstract; Col. 7, ll. 32-34)

Regarding claim 6, while Dobrin et al. does not disclose the specific number of teeth per inch, one in the art would appreciate that the number would fall within appellant's range since both Dobrin et al. and appellant are making laminates for the same purpose, i.e. use in a diaper and therefore would desire the same properties.

Regarding claims 8 and 17, Dobrin et al. discloses the second web is a polymeric film.(Abstract)

Regarding claims 9, 10, 18, and 19, Dobrin et al. discloses the polymeric film is extensible and breathable.(Col. 20, ll. 22-23, 53)

Regarding claims 11 and 20, since the polymeric film can be elastic, it could be stretched in multiple directions.(Abstract)

Regarding claim 13, Dobrin et al. discloses the first web can have corrugations.(Figure 9; Col. 10, ll. 17-21)

Regarding claims 13-15, when the corrugated first web is bonded to the second web, one in the art would appreciate that the adhesive would be applied to the tips of the corrugations so that adhesive would not be wasted.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrin et al., Weber et al., and Boger et al. as applied to claim 1 above, and further in view of Morman et al.(U.S. Publication 2002/0119288A1)

The references cited above do not disclose stretching the web in the machine direction though Dobrin et al. discloses the second web can be stretched prior to bonding to the first web(Col. 19, ll. 39-41). Stretching of polymeric films before joining to other webs is well-known and conventional in the laminating arts as such thins the film, making it breathable as shown for example by Morman et al. which discloses stretching the filled web in the machine direction to cause breathability before laminating it another web.[0011]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to stretch the filled second web in the machine direction prior to bonding it to the first web since this is well-known and conventional in the laminating arts as show for example by Morman et al.[0011] and since it is an obvious alternative to the stretching in the cross direction to create breathability taught by Dobrin et al.(Col. 20, ll. 28-31)

(10) Response to Argument

Regarding appellant's argument that Dobrin et al. uses teeth with rounded tips which already avoid cuts and tears to the web so that using multiple corrugating rolls to perform the same function would not be needed, the substitution of one known element for another to obtain predictable results is considered an obvious reason to modify a reference. These elements perform the same function and thus are equivalents and

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therefore obvious variations. Alternatively, the rejection does not state that the shape of the rolls of Dobrin et al. are replaced, simply that the concept of multiple corrugating rolls is used. Since the shape of the corrugations is related to the desired final shape of the corrugations in the webs, one in the art would appreciate that the same pattern and shape of corrugations of Dobrin et al. would be used when modifying it to use multiple corrugation rollers since the pattern and shape of the corrugations determines the pattern and shape of the corrugations of the web. It is known to use two mechanisms which perform the same function together, i.e. using the rounded tips of Dobrin et al. and the multiple corrugating rolls of Weber et al., to improve the process efficiency such as the use of belt and suspenders when both perform the same function and the combination renders the problem they prevent even less likely. This would result in a cumulative benefit.

Regarding appellant's argument that the web of Weber et al. is untensioned, the portion of the Weber et al. reference appellant is referring to is describing the article since it refers to Figure 2D, which shows the article. In general, a film moving from one location to another is considered to be under tension unless specifically described as not under tension since it is tension in the longitudinal direction that moves the web. The reference discloses the web is under slight tension in the longitudinal direction.(Col. 11, ll. 59-62) It is noted the Dobrin et al. discloses the tension can be controlled depending on the desired width(Col. 9, ll. 9-Col. 10, l. 51) and the reference provides examples with very low tension(Table II, A and B).

Regarding appellant's argument that Dobrin et al. is directed to a web while Weber et al. is directed to a laminate, the fact the Weber et al. is directed to a laminate does not mean it would not be obvious to use the process with a web. The process offers the advantages of reducing the stress on the web by allowing stress redistribution to the web reducing the chance of damage to the web. This appears to be an advantage that would occur regardless of whether the material being stretched was one web or a laminate made of multiple webs bonded together.

Regarding appellant's argument that Weber et al. uses vacuum and Dobrin et al. uses tension, examiner is not taking Weber et al. wholesale into Dobrin et al., but rather using the concept of using multiple rolls acting with a single mating roll to reduce tension. This occurs whether the web is held on the roll by vacuum or by tension. Additionally, Weber et al. uses vacuum since the cutting step forms individual pieces of elastic which clearly cannot be held in place by tension since they are no longer part of a continuous web. When the elastic is still part of a continuous web, one in the art would appreciate that tension could be used instead.

Regarding appellant's argument that Weber et al. does not disclose a plurality of mating surfaces having fins that fit within the grooves of the forming surface, appellant's own specification describes this in the same manner as Weber et al and the Figures are similar(Figure 2A of Weber et al. and Figure 3 of appellant).. Each of the corrugating rolls 24b and 25 have fins that are positioned to enter grooves on the forming surface 23 at separate locations. The two corrugating rollers comprise a "plurality", each with fins which fit into the grooves on the forming surface. The claim does not require the

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fins to extend around the entire circumference of the roller as the claim does not even require rollers. Appellant's arguments are not commensurate in scope with the claims as appellant is arguing that the fins and grooves of Weber et al. fit hand in glove and touch along all surface while appellant's do not, but the claim only requires the fins to fit within the grooves which a hand in glove arrangement provides. Even the primary references shows fins fitting within grooves when corrugating the web.(Figure 2)

Regarding appellant's argument that the combination would not be obvious since Weber et al. did not envision the combination, the fact that the reference did not envision all possible combinations does not indicate the combination was not obvious, but merely that the reference did not describe every possibility. The fact that a group of inventors failed to envision a combination does not mean that other skilled in the art when presented with the references would not have envisioned the combination. The statutory standard of obviousness involves the hypothetical person of ordinary skill in the art, not the actual inventors (or authors) of references used as evidence of obviousness. The KSR decision states that the combining of prior art techniques according to known methods to yield predictable results is obvious. These are clearly known techniques combined according to known methods which yield a predictable result. This is also an example of the use of a known technique to improve a similar method in the same way, which again indicates the combination would have been obvious. The fact that the inventors did not brainstorm on every possible modification to their device and include it in their application does not mean it would not have been obvious.

Regarding appellant's argument that examiner is ignoring the law and contradicting the facts by examiner's response to appellant's argument about Dobrin et al. being a web while Weber et al. is a laminate and thus the advantage is the same, examiner does not see how examiner is ignoring the law OR contradicting the facts. Examiner has demonstrated obviousness with a reason (reducing the strain on the web and causing less damage). Additionally, via KSR, the combination is ALSO obvious since it is both a combining of known prior art elements according to known methods to yield predictable results, a substitution of one known element(multiple corrugating rolls) for another(rounded tips) to yield predictable results, and a use of known technique to improve similar devices in the same way. Weber et al. specifically states the method prevents rupture of the webs in the patterns of the corrugations(Col. 9, ll. 18-19) Appellant appears to be misinterpreting the facts, as the reference does not disclose the problem with the prior art was separation of the webs, i.e. damage to the interface, as appellant indicates. Instead the reference clearly states the damage would be rupturing, i.e. tearing, of the webs, not separation of the webs and thus is a valid reason to use the same device on a single web. Examiner agrees that stretching would stress the interface, but the reference does not disclose this as the reason for the use of multiple corrugating rolls, and even if it did, it still states that a problem is rupturing of the laminate, which would occur for a single web and would in fact seem to be more likely for a single web since it would not have a reinforcing/protective layer bonded to it.

Regarding appellant's argument that examiner has impermissibly placed on appellant the burden of proof, when examiner has provided a reason for obviousness,

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the burden shifts to appellant to rebut the combination. Appellant has asserted that adhesive would behave differently without providing any evidence to that effect. What appellant appears to actually be arguing is that the amount of adhesive needed would be different and that its degree of penetration into the web would be different, which would be obvious since one of ordinary skill would know that changes in the material, i.e. changes in density or thickness, would result in a change in the amount of adhesive required, particularly since the primary references suggest the use of adhesive (Col. 21, ll. 24) indicating that such modifications would be known to those in the art. There is no evidence that the behavior of the adhesive, i.e. its properties, would change dependent on the material it was applied to. Examiner finds it unlikely the behavior of the adhesive would change, though the amount needed or the depth to which it would penetrate might. This is why examiner requested evidence, as it appeared that appellant was stating that the properties, i.e. behavior, of the adhesive would change dependent on the material it was applied to. Since a change in the properties of the adhesive depending on the type of material it is applied to is unexpected, examiner was requesting evidence of these unexpected results.

Regarding appellant's argument that Dobrin et al. does not disclose that well-known types of adhesive applicators can be used, it indicates that the joining can occur in a number of ways, including adhesive lamination, and that these methods are well-known to those in the art. (Col. 21, ll. 22-25) This indicates that the joining can occur via any adhesive lamination method. As to appellant's argument that a slot adhesive process is not included in this list, a slot adhesive applicator is a type of adhesive

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lamination device, i.e. one species of adhesive laminating devices. The reference does not disclose ANY type of adhesive applicator, only disclosing the general types of processes, so clearly appellant's specific type is not listed. This does not mean that one in the art would not look to known methods of adhesive lamination to determine how to bond the layers together. If adhesive lamination does not require application of some type of adhesive using some type of device, then examiner is unclear as to how such adhesive lamination is performed.

Regarding appellant's argument that Boger et al. does not disclose use of a slot coat process to apply adhesive directly to a flexible sheet, the slot coater(20, Col. 2, ll. 28-31) applies the adhesive directly to the flexible web.(Figure 1) While this is not a stretched web, it is a web which is part of a diaper, as are Dobrin et al. and Weber et al. The web of Dobrin et al. is a stretched web and the reference discloses adhesive can be applied to the stretched web.(Col. 21, ll. 24). Clearly then, one in the art would appreciate any problems associated with using adhesive on a nonwoven porous web and how to account for them since the primary reference indicates adhesive can be used.(Col. 21, ll. 24)

Regarding appellant's argument that Boger et al. does not disclose applying the adhesive to a corrugated web, applying adhesive to a corrugated web would not appear to require any more than applying adhesive to an uncorrugated web other than a determination of the precise locations to which adhesive should be applied. As the device of Boger et al. applies adhesive to discrete locations spaced in the transverse direction, one in the art would appreciate that such a device would be useful when

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applying adhesive to other webs having adhesive application locations spaced in the transverse direction. This would prevent adhesive application to locations where it was not used, i.e. on the sides of the corrugations, just as Boger et al. only applies adhesive to places it will be used, i.e. not to places where the leg holes are cut away.(Col. 5, ll. 34-35)

Regarding appellant's argument that Dobrin et al. does not disclose stretching the machine direction as an alternative to stretching the cross-direction, the fact that a reference does not disclose something well-known in the art does not mean that such is not well known in the art as shown for example by Morman et al. which discloses stretching in the machine direction to improve breathability.[0011]

Regarding appellant's argument that one would not stretch in the machine direction since such causes necking and other unwanted effects, one in the art would know about these effects as they would also know about unwanted effects caused by stretching in the cross-direction and would choose a stretching direction depending on which unwanted effects were less deleterious for the desired invention. Such a choice would have been well within the skill of one in the art. This is a simple combination of known prior art elements according to known methods to yield predictable results.

Regarding appellant's argument that Morman et al. is not in the context of the claims as it is stretching the second web rather than the first, Morman et al. is cited to show that such is well-known and conventional in the laminating arts, a combining of known prior art elements according to known methods to yield predictable results.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BJM

/B. J. M./
Examiner, Art Unit 1791

Conferees:

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1791

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